Safety data sheet
according to 1907/2006/EC, Article 31

Printing date: 21.08.2023 Version number: 3.0 (replaces version 2.0) Revision: 21.08.2023

SECTION 1: Identification of the substance/mixture and of the company/undertaking:

1.1 Product identifier:

Trade name: IZ-C17+Ni
UFI: 4C90-C00Q-T00R-XK1T

1.2 Relevant identified uses of the substance or mixture and uses advised against:
No further relevant information available.
Application of the substance / the preparation:
Electroplating auxiliary
For industrial users only.

1.3 Details of the supplier of the safety data sheet:
Manufacturer/Supplier:
Dipsol Europe GmbH
Merowingerplatz 1a
40225 Düsseldorf

Telefon: +49 (0) 211 157 6092 0
Telefax: +49 (0) 211 157 6092 10
E-mail: info@dipsol.eu
http://www.dipsol.eu

Further information obtainable from: Dipsol Europe GmbH
1.4 Emergency telephone number: +49 (0) 211 157 6092 0 (during business hours)

SECTION 2: Hazards identification:

2.1 Classification of the substance or mixture:
Classification according to Regulation (EC) No 1272/2008:


GHS06 skull and crossbones

Acute Tox. 2	H330	Fatal if inhaled.


GHS08 health hazard

Resp. Sens. 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Muta. 2	H341	Suspected of causing genetic defects.
Carc. 1A	H350i	May cause cancer by inhalation.
Repr. 1B	H360D	May damage the unborn child.
STOT RE 1	H372	Causes damage to the respiratory system and the male genitalia through prolonged or repeated exposure. Route of exposure: Inhalation.


GHS05 corrosion

Skin Corr. 1B	H314	Causes severe skin burns and eye damage.
Eye Dam. 1	H318	Causes serious eye damage.


GHS09 environment

Aquatic Chronic 2	H411	Toxic to aquatic life with long lasting effects.

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GHS07

Acute Tox. 4	H302	Harmful if swallowed.
Skin Sens. 1	H317	May cause an allergic skin reaction.

2.2 Label elements:
Labelling according to Regulation (EC) No 1272/2008:
The product is classified and labelled according to the CLP regulation.
Hazard pictograms:

GHS05 GHS06 GHS08 GHS09

Signal word: Danger

Hazard-determining components of labelling:
reaction mass of hydroxyethyl-DETA, DETA and dihydroxyethyl-DETA
nickel sulphate
Hazard statements:
H302 Harmful if swallowed.
H330 Fatal if inhaled.
H314 Causes severe skin burns and eye damage.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H341 Suspected of causing genetic defects.
H350i May cause cancer by inhalation.
H360D May damage the unborn child.
H372 Causes damage to the respiratory system and the male genitalia through prolonged or repeated exposure. Route of exposure: Inhalation.
H411 Toxic to aquatic life with long lasting effects.
Precautionary statements:
P260 Do not breathe dusts or mists.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
Additional information:
Restricted to professional users.
2.3 Other hazards:
Results of PBT and vPvB assessment:
PBT: Not applicable.
vPvB: Not applicable.

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SECTION 3: Composition/information on ingredients:

3.2 Mixtures:
Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

CAS: 7786-81-4 EINECS: 232-104-9 Reg.nr.: 01-2119439361-44	nickel sulphate Resp. Sens. 1, H334; Muta. 2, H341; Carc. 1A, H350i; Repr. 1B, H360D; STOT RE 1, H372; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Irrit. 2, H315; Skin Sens. 1, H317 Specific concentration limits: STOT RE 1; H372: C ≥ 1 % STOT RE 2; H373: 0.1 % ≤ C < 1 % Skin Irrit. 2; H315: C ≥ 20 % Skin Sens. 1; H317: C ≥ 0.01 %	>10-<20%
EC number: 945-047-6 Reg.nr.: 01-2120772317-50-0003	reaction mass of hydroxyethyl-DETA, DETA and dihydroxyethyl-DETA Acute Tox. 2, H330; Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; STOT SE 3, H335	≥5-≤10%

Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures:

4.1 Description of first aid measures:
General information:
Take affected persons out into the fresh air.
Do not leave affected persons unattended.
Immediately remove any clothing soiled by the product.
After inhalation:
Supply fresh air.
Call a doctor immediately.
In case of unconsciousness place patient stably in side position for transportation.
After skin contact:
Immediately wash with water and soap and rinse thoroughly.
Call a doctor immediately.
After eye contact:
Rinse opened eye for several minutes under running water.
Call a doctor immediately.
After swallowing:
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; call for medical help immediately.
4.2 Most important symptoms and effects, both acute and delayed:
No further relevant information available.
4.3 Indication of any immediate medical attention and special treatment needed:
No further relevant information available.

SECTION 5: Firefighting measures:

5.1 Extinguishing media:
Suitable extinguishing agents:
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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5.2 Special hazards arising from the substance or mixture:
Formation of toxic gases is possible during heating or in case of fire.
Carbon monoxide (CO)
Nitrogen oxides (NOx)
5.3 Advice for firefighters:
Protective equipment:
Do not inhale explosion gases or combustion gases.
Mouth respiratory protective device.
Additional information:
Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures:

6.1 Personal precautions, protective equipment and emergency procedures:
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation.
Use respiratory protective device against the effects of fumes/dust/aerosol.
6.2 Environmental precautions: Do not allow product to reach sewage system or any water course.
6.3 Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
6.4 Reference to other sections:
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage:

7.1 Precautions for safe handling:
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
Keep receptacles tightly sealed.
Information about fire - and explosion protection: Keep ignition sources away - Do not smoke.

7.2 Conditions for safe storage, including any incompatibilities:
Storage:
Requirements to be met by storerooms and receptacles:
Store only in the original receptacle.
Store in a cool location.
Information about storage in one common storage facility: Store away from foodstuffs.
Further information about storage conditions:
Protect from heat and direct sunlight.
Store in cool, dry conditions in well sealed receptacles.
Storage class: 6.1 B
7.3 Specific end use(s): No further relevant information available.

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SECTION 8: Exposure controls/personal protection:

8.1 Control parameters:
Ingredients with limit values that require monitoring at the workplace:

7786-81-4 nickel sulphate
OEL Long-term value: 0.1 mg/m³
as Ni

8.2 Exposure controls:
Appropriate engineering controls: No further data; see section 7.
Individual protection measures, such as personal protective equipment:
General protective and hygienic measures:
The usual precautionary measures are to be adhered to when handling chemicals.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Do not inhale gases / fumes / aerosols.
Respiratory protection:
Use suitable respiratory protective device in case of insufficient ventilation.
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
Filter ABEK2-P3
Hand protection:
Protective gloves
Check the permeability prior to each anewed use of the glove.
Material of gloves:
Butyl rubber, BR
Recommended thickness of the material: ≥ 0.7 mm
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
Penetration time of glove material:
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
Eye/face protection: Tightly sealed goggles

SECTION 9: Physical and chemical properties:

9.1 Information on basic physical and chemical properties:
General Information:

Physical state:	Fluid
Colour:	Violet
Odour:	Odourless
Odour threshold:	Not determined.
Melting point/freezing point:	Undetermined.
Boiling point or initial boiling point and boiling range:	Undetermined.
Flammability:	Not applicable.
Lower and upper explosion limit:	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	Not applicable.
Decomposition temperature:	Not determined.

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pH at 20 °C:	6.8-7.2
Viscosity:	
Kinematic viscosity:	Not determined.
Dynamic:	Not determined.
Solubility:	
water:	Fully miscible.
Partition coefficient n-octanol/water (log value):	Not determined.
Vapour pressure at 20 °C:	23 hPa (7732-18-5 water, distilled, conductivity or of similar purity)
Density and/or relative density:	
Density:	Not determined.
Relative density:	Not determined.
Vapour density:	Not determined.
9.2 Other information:	
Appearance:	
Form:	Fluid
Important information on protection of health and environment, and on safety.:	
Ignition temperature:	Product is not selfigniting.
Explosive properties:	Product does not present an explosion hazard.
Solvent content:	
VOC (EC):	0.00 %
Change in condition:	
Evaporation rate:	Not determined.
Information with regard to physical hazard classes:	
Explosives:	Void
Flammable gases:	Void
Aerosols:	Void
Oxidising gases:	Void
Gases under pressure:	Void
Flammable liquids:	Void
Flammable solids:	Void
Self-reactive substances and mixtures:	Void
Pyrophoric liquids:	Void
Pyrophoric solids:	Void
Self-heating substances and mixtures:	Void
Substances and mixtures, which emit flammable gases in contact with water:	Void
Oxidising liquids:	Void
Oxidising solids:	Void
Organic peroxides:	Void
Corrosive to metals:	Void
Desensitised explosives:	Void

SECTION 10: Stability and reactivity:

10.1 Reactivity: No further relevant information available.
10.2 Chemical stability:
Thermal decomposition / conditions to be avoided:
No decomposition if used according to specifications.
10.3 Possibility of hazardous reactions: No dangerous reactions known.

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10.4 Conditions to avoid: No further relevant information available.
10.5 Incompatible materials: No further relevant information available.
10.6 Hazardous decomposition products:
Corrosive gases/vapours
Poisonous gases/vapours

SECTION 11: Toxicological information:

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008:
Acute toxicity:
Harmful if swallowed.
Fatal if inhaled.
LD/LC50 values relevant for classification:

ATE (Acute Toxicity Estimates)

Oral	LD50	1,648 mg/kg
Dermal	LD50	11,000 mg/kg
Inhalative	LC50/4 h	0.478 mg/l

7786-81-4 nickel sulphate

Oral	LD50	361.9 mg/kg (rat)
Inhalative	LC50/4 h	1.6 mg/l (rat)

reaction mass of hydroxyethyl-DETA, DETA and dihydroxyethyl-DETA

Oral	LD50	500 mg/kg (ATE)
Dermal	LD50	1,100 mg/kg (ATE)
Inhalative	LC50/4 h	0.05 mg/l (ATE)

Skin corrosion/irritation:
Causes severe skin burns and eye damage.
Serious eye damage/irritation:
Causes serious eye damage.
Respiratory or skin sensitisation:
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
Germ cell mutagenicity:
Suspected of causing genetic defects.
Carcinogenicity:
May cause cancer by inhalation.
Reproductive toxicity:
May damage the unborn child.
STOT-single exposure: Based on available data, the classification criteria are not met.
STOT-repeated exposure:
Causes damage to the respiratory system and the male genitalia through prolonged or repeated exposure.
Route of exposure: Inhalation.
Aspiration hazard: Based on available data, the classification criteria are not met.
11.2 Information on other hazards:
Endocrine disrupting properties:
None of the ingredients is listed.

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SECTION 12: Ecological information:

12.1 Toxicity:
Aquatic toxicity:

7786-81-4 nickel sulphate
LC50 15.3 mg/l /96 h (fish)
12.2 Persistence and degradability: No further relevant information available.
12.3 Bioaccumulative potential: No further relevant information available.
12.4 Mobility in soil: No further relevant information available.
12.5 Results of PBT and vPvB assessment:
PBT: Not applicable.
vPvB: Not applicable.
12.6 Endocrine disrupting properties:
The product does not contain substances with endocrine disrupting properties.
12.7 Other adverse effects:
Additional ecological information:
General notes:
The product contains heavy metals. Avoid transfer into the environment. Specific preliminary treatments are necessary
Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.

SECTION 13: Disposal considerations:

13.1 Waste treatment methods:
Recommendation:
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
European waste catalogue:
Dispose of contents/container in accordance with local/regional/national/international regulations.

Uncleaned packaging:
Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information:

14.1 UN number or ID number:

ADR, IMDG, IATA	UN2927
14.2 UN proper shipping name:	
ADR	2927 TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S. (Reaction mass of hydroxyethyl-DETA, DETA and dihydroxyethyl-DETA, nickel sulphate), ENVIRONMENTALLY HAZARDOUS
IMDG	TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S. (Reaction mass of hydroxyethyl-DETA, DETA and dihydroxyethyl-DETA, nickel sulphate), MARINE POLLUTANT
IATA	TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S. (Reaction mass of hydroxyethyl-DETA, DETA and dihydroxyethyl-DETA, nickel sulphate)

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14.3 Transport hazard class(es):

ADR

Class:	6.1 Toxic substances.
Label:	6.1+8

IMDG

Class:	6.1 Toxic substances.
Label:	6.1/8

IATA

Class:	6.1 Toxic substances.
Label:	6.1 (8)
14.4 Packing group:	
ADR, IMDG, IATA	II
14.5 Environmental hazards:	Product contains environmentally hazardous substances: nickel sulphate
Marine pollutant:	Symbol (fish and tree)
Special marking (ADR):	Symbol (fish and tree)
14.6 Special precautions for user:	Warning: Toxic substances.
Hazard identification number (Kemler code):	68
EMS Number:	F-A,S-B
Stowage Category:	B
Stowage Code:	SW2 Clear of living quarters.
14.7 Maritime transport in bulk according to IMO instruments:	Not applicable.

Transport/Additional information:

ADR

Limited quantities (LQ):	100 ml
Transport category:	2
Tunnel restriction code:	D/E
UN "Model Regulation":	UN 2927 TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S. (REACTION MASS OF HYDROXYETHYL-DETA, DETA AND DIHYDROXYETHYL-DETA, NICKEL SULPHATE), 6.1 (8), II, ENVIRONMENTALLY HAZARDOUS

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SECTION 15: Regulatory information:

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

Directive 2012/18/EU:
Named dangerous substances - ANNEX I: None of the ingredients is listed.
Seveso category:
H2 ACUTE TOXIC
E2 Hazardous to the Aquatic Environment
Qualifying quantity (tonnes) for the application of lower-tier requirements: 50 t
Qualifying quantity (tonnes) for the application of upper-tier requirements: 200 t
REGULATION (EC) No 1907/2006 ANNEX XVII: Conditions of restriction: 3, 27, 28, 30
DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II:
None of the ingredients is listed.
REGULATION (EU) 2019/1148:
Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3)):
None of the ingredients is listed.
Annex II - REPORTABLE EXPLOSIVES PRECURSORS:
None of the ingredients is listed.
Regulation (EC) No 273/2004 on drug precursors:
None of the ingredients is listed.
Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors:
None of the ingredients is listed.
15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information:

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases:
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H330 Fatal if inhaled.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H341 Suspected of causing genetic defects.
H350i May cause cancer by inhalation.
H360D May damage the unborn child.
H372 Causes damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
Training hints:
Employees who use the product have to be trained on risks for health, hygiene, use of individual protection, accident preventive actions, rescue actions, etc.,

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Department issuing SDS:
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Contact: Dr. Axel Deeg
Version number of previous version: 2.0
Abbreviations and acronyms:
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity – Category 4
Acute Tox. 2: Acute toxicity – Category 2
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Resp. Sens. 1: Respiratory sensitisation – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
Muta. 2: Germ cell mutagenicity – Category 2
Carc. 1A: Carcinogenicity – Category 1Ai
Repr. 1B: Reproductive toxicity – Category 1B
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2